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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,706	03/31/2004	Peter Anderson	H0005720-1045	8907
128	7590	07/22/2005	EXAMINER	
HONEYWELL INTERNATIONAL INC.			VERBITSKY, GAIL KAPLAN	
101 COLUMBIA ROAD			ART UNIT	
P O BOX 2245			PAPER NUMBER	
MORRISTOWN, NJ 07962-2245			2859	

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/813,706

Applicant(s)

ANDERSON ET AL.

Examiner

Gail Verbitsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 11, 14, 21, 23 are rejected under 35 U.S.C. 102(b) as being anticipated by over Danninger (U.S. 4152938).

Danninger discloses a device in the field of applicant's endeavor comprising a sensor cavity, a temperature sensor 54 positioned along a centerline/ longitudinal axis of said cavity but offset of the centerline, and generating a signal indicative of an air flowing into. The device also comprises a generally cylindrical outer casing 25 surrounding the sensor cavity, the outer casing includes a pattern of flow passages (holes) 61 on a generally tubular surface of said cylindrical outer casing for allowing air to said sensing element 54, said flow passages are, inherently, angled 90 degrees (or offset a centerline (perpendicular axis dividing the device into two substantially equal parts), as shown in Fig. 2, thus, there is no direct line of the air flow from the flow passages 61 to the temperature sensing element 54 from the exterior of the outer casing 25.

For claims 4, 11, 21, 23: the device further comprising a front face 16 (Fig. 1). Said front face including a pattern of openings/ intake orifices 48 wherein the air flow can be partially bled into a channel 30, and the solid particles are not directed through the

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channel 30, but pass directly through a channel 14 (Fig. 2 and col. 4, lines 41-47, entire col. 5).

3. Claims 1, 5-7, 11, 15-17, 22, 24 are rejected under 35 U.S.C. 102(b) as being anticipated by DeLeo (U.S. 4403872).

DeLeo discloses in Fig. 1 a device in the field of applicant's endeavor comprising a sensor cavity, a temperature sensor 38 positioned along a central line of the cavity and protruding into an air passage. The device also comprises a cylindrical outer casing surrounding the sensor cavity, the outer casing having a pattern of flow passages 22 arranged on a substantially tubular surface 11 of the outer casing such that the air flow is substantially perpendicular to the outer casing, because the flow pattern 22 would, inherently, allow at least some flow in the cavity, said flow passages 22 are angled (approximately 90 degrees, as shown in Fig. 1), or offset a centerline (perpendicular axis dividing the device into two substantially equal parts) and there is no direct line of the air flow from the exterior of the outer casing through the openings 22 to the sensor 38. The cavity is at least a part of an aircraft bleed air system.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-3, 5, 8, 10-13, 15, 18, 20, 22, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62043528 A [hereinafter JP] in view of Roeckel et al. (U.S. 20030126925) [hereinafter Roeckel].

JP discloses in Figs. 1-3 a temperature measuring sensing arrangement comprising a sensor cavity 12, a temperature-sensing element 21 positioned along a center line of said sensor cavity and, inherently, generating a signal indicative of a temperature of a fluid flow. The device also comprising a cylindrical outer casing 11 surrounding the cavity, the outer casing has a pattern of flow passages/ inflow ports 16 allowing a flow in the cavity. The ports/ passages are angulated such that there is no direct line of the flow from an exterior of the outer casing to the sensing element 21.

For claim 2: as shown in Fig. 2, the combination of holes 16 and a hole in an orifice plate, would serve to prevent debris, especially, when debris is bigger than the holes, from directly impacting the temperature-sensing element 21.

For claim 3: As shown in Fig. 1, the holes are generally circular holes.

For claim 5: as shown in Figs. 2-3, the temperature-sensing element is protruding into a flow passage and substantially perpendicular to the flow.

With respect to claims 8 and 18: the use of the particular material, i.e., stainless steel, as stated in claims 8 and 18, for the outer casing, absent any criticality, is only considered to be the "optimum" material that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide for the outer casing disclosed by JP since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to

select a known material on the basis of its suitability for the intended use of the invention. In re Leshin, 125 USPQ 416.

JP does not explicitly teach that the fluid is an air, as stated in claim, with the remaining limitations of claims 1-3, 5, 8, 10-13, 15, 18, 20, 22, 24.

Roeckel discloses in Figs. 1-2 a device 1 comprising a temperature sensor 23 located in a sensor cavity and positioned along a centerline of the cavity 20 and generating a signal indicating a temperature of airflow 6. The sensor cavity 20 is surrounded with a cylindrical outer casing (tubular member) 3, 8 (Fig. 2). Said outer casing 3, 8 includes a pattern of flow passages 36 having a declined deflection angle (offset of the center line) such that there is no direct line of the air flow from the exterior of the outer casing through the passages to the sensor 23. The holes are made by a material removing method/step (paragraph [0015]). This would imply, that the material is removed at said angle, the angle is a function of the thickness of said outer casing; in other words, it depends on the thickness of the outer casing which allows some degree of angulation.

For claims 2, 12: This would imply, that the sensor is prevented from being directly impacted by the airflow including any debris in the airflow.

For claims 10, 20: as shown in Fig. 2, the flow passages are equally spaced by the thickness of their walls.

For claims 3 and 13: the holes are round (circular) (paragraph [0022]).

Therefore, it would have been obvious to one of ordinary skill in the art, to use the device, disclosed by JP, with an air, as taught by Roeckel, because both of them, are alternate types of fluid, whose temperature needs to be measured.

6. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP and Roeckel, as applied to claims 1-3, 5, 8, 10-13, 15, 18, 20, 22, 24 above, and further in view of Suzuki et al. (U.S. 4941437) [hereinafter Suzuki]

JP and Roeckel disclose the device as stated above in paragraph 5.

JP and Roeckel do not teach the material removing method is a drilling, as stated in claims 9 and 19.

Suzuki teaches that holes could be done by drilling.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of removing material, disclosed by JP and Roeckel, with removing the material from the hole by drilling, as taught by Suzuki, because both of them are alternate types of methods of removing the material which will perform the same function, of producing holes in a structure, if one is replaced with the other.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

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**Gotcher U.S. 4575705 discloses a device in the field of applicant's endeavor comprising a stainless steel outer casing.**

Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (571) 272-2253 Monday through Friday 8:00 to 4:00 ET.

GKV

Gail Verbitsky  
Primary Patent Examiner, TC 2800



June 18, 2005